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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Mi-Ryong Park

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EXAMINER

ABELSON, RONALD B

ART UNIT

PAPER NUMBER

2666

DATE MAILED: 08/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/998,571

Applicant(s)

PARK ET AL.

Examiner

Ronald Abelson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2001, 11/8/04, and 3/5/02.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/8/04 & 11/16/01.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Claim Objections

1. Claim 3 is objected to because of the following informalities: On line 4, "firs" should be changed to "first". Appropriate correction is required.

Claim 10 is objected to because of the following informalities: On line 10, "telephone number" should be changed to "destination telephone number". Appropriate correction is required.

Claim 10 is objected to because of the following informalities: On line 4, "client's" should be changed to "telephone terminal clients'". Appropriate correction is required.

Claim 10 is objected to because of the following informalities: On line 5, "servers" should be changed to "plurality of servers'". Appropriate correction is required.

Claim 11 is objected to because of the following informalities: On line 3, "telephone number" should be changed

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to "destination telephone number". Appropriate correction is required.

Claim 14 is objected to because of the following informalities: On line 2, "telephone number" should be changed to "destination telephone number". Appropriate correction is required.

Claim 16 is objected to because of the following informalities: On line 2, "said server" should be changed to "said plurality of servers". Appropriate correction is required.

Claim 17 is objected to because of the following informalities: On line 4, "said higher server" should be changed to "said plurality of higher servers". Appropriate correction is required.

Drawings

2. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP

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§ 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. Claims 1 and 6-17 are rejected under 35 U.S.C. 102(a) as being anticipated by Park "A Telephone Domain Name System (T-DNS) for Internet Telephone Service at All IP Network". See "Proceedings of 5th WSES" provided by the applicant.

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Regarding claims 1 and 10, Park teaches a telephone number domain system on the Internet network providing a connection between IP address and telephone number on the Internet network (pg. 3 section 2.3) offering Voice over Internet Protocol 'VoIP' services to Public Switched Telephone Network (existing telephone network, Introduction: pg. 1).

Park teaches a client (T-DNS client, pg. 3 section 2.3), having a telephone number input section for receiving a telephone number (receives unique phone URL, pg. 3 section 2.3, E.164 phone number, pg. 4 section 3.2), a domain name conversion section for converting said received telephone number into a domain name (converts phone URL to Fully Qualified Domain Name 'FQDN', pg. 3 section 2.3, replacing E.164 phone number to FQDN, pg. 4 section 3.2), and an address request section for requesting an Internet Protocol 'IP' address corresponding to said converted domain name (looks converted FQDN up the IP address to a T-DNS server, pg. 3 section 2.3, requesting a resolve message to a DNS server, pg. 4 section 3.2).

Park teaches a telephone number domain server (T-DNS server, pg. 3 section 2.3, DNS server, pg. 4 section 3.2), having an address search section for searching an IP address corresponding to an IP address request of said address request section (server simply responses the IP address of FQDN, pg. 4

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section 3.2), and an address response section for transmitting said search IP address to said client (server simply responses the IP address of FQDN, pg. 4 section 3.2).

Regarding claim 6, a telephone number URL input section for receiving a telephone number URL (Park: T-DNS client, it receives a unique name represent by phone URL, , pg. 3 section 2.3), a telephone number URL-domain name conversion section for converting said received telephone number URL into a domain name (converts phone URL to Fully Qualified Domain Name 'FQDN', pg. 3 section 2.3, replacing E.164 phone number to FQDN, pg. 4 section 3.2), and providing said converted domain name to said address request section (T-DNS client requesting a resolve message to a DNS server, pg. 4 section 3.2).

Regarding claim 7, at least one higher server than said telephone number domain server (fig. 1, pg. 3 section 3.1 1st and 3rd paragraphs, root DNS server). Note, examiner corresponds applicant's telephone number domain server with "860" server of the reference.

Regarding claim 8, said converted domain name is formed by combining a country number domain, a regional number domain, a

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telephone exchange number domain, and a telephone terminal number domain using said received telephone number (pg. 4, section 3.2, Table 1) Given converted domain name "1211.860.42.82" note URL 82-42-860-1211 wherein country number domain=82, regional number domain=42, telephone exchange number domain=860, telephone terminal number domain=1121).

Regarding claim 9, said converted name / "1211.860.42.82" is formed by converting a country number of said received telephone number into a top level domain (pg. 3 section 3.1, 3rd paragraph, root DNS server knows country code "82"), a regional number of said received telephone number into a second level domain (pg. 3 section 3.1, 3rd paragraph, DNS server controlling 82 code), a telephone exchange number of said received telephone number into a third level domain (pg. 3 section 3.1, 3rd paragraph, server which is managing "42"), and a telephone terminal number of said received telephone number into a fourth level domain (pg. 3 section 3.1, 3rd paragraph, "860" server controls local phone numbers).

Regarding claims 11 and 15, setting a country number of said destination telephone number as the top level domain of the domain name (pg. 3 section 3.1, 3rd paragraph, root DNS server

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knows country code "82"), setting a regional number of said destination telephone number as the second level domain of the domain name (pg. 3 section 3.1, 3rd paragraph, DNS server controlling 82 code), setting a telephone exchange number of said destination telephone number as the third level domain of the domain name (pg. 3 section 3.1, 3rd paragraph, server which is managing "42"), setting a telephone number terminal of said destination telephone number as the bottom level domain of the domain name (pg. 3 section 3.1, 3rd paragraph, "860" server controls local phone numbers).

Regarding claim 12, recognizing said country number to which the client belongs and setting said country number as said top level domain of said domain name if said country number of said destination telephone number is not inputted (pg. 4 section 3.2, Table 1: If a local phone number requests a phone number without a country code, T-DNS client adds the country code).

Regarding claim 13, recognizing said regional number to which the client belongs and setting said regional number as the second level domain of said domain name if said regional number of said destination telephone number is not inputted (pg. 4

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section 3.2, Table 1: If a local phone has the phone number without a country and regional code).

Regarding claim 14, the telephone number is a telephone number URL (E.164 phone number describes a phone URL, pg. 3 section 2.3).

Regarding claim 16, said server comprises client's server and a plurality of higher servers (fig. 1, pg. 3 section 3.1 3rd paragraph, root DNS server, DNS server controlling 82, server managing "42", "860" server). Note, examiner corresponds applicant's client's server with "860" server of the reference.

Regarding claim 17, searching for said IP address is carried out by searching said client's server and said higher server for said IP address (pg. 4 section 3.2, server responses the IP address of FQDN, fig. 1, pg. 3 section 3.1, 3rd paragraph). Note information stored in each of the servers referenced in section 3.1 3rd paragraph).

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Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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7. Claims 2 and 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Park as applied to claim 1 above, and further in view of Furukawa (US 20020009073).

Regarding claim 2, Park is silent on a first storage section storing said converted domain names.

Regarding claim 2, Furukawa teaches a first storage section storing said converted domain names (fig. 143, see entries for Domain Name Expression of Telephone No., [0744]).

Regarding claim 3, Park is silent on searching a first storage section, and retrieving a domain name existing in the first storage section and converting said received telephone number into said domain name if said domain name corresponding to said received telephone number exists in the storage section.

Regarding claim 3, Furukawa teaches searching a first storage section, and retrieving a domain name existing in the first storage section and converting said received telephone number into said domain name if said domain name corresponding to said received telephone number exists in the storage section (fig. 143, [0074], converts the telephone number corresponding to the domain name of the telephone number).

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Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of Park by incorporating within the client the conversion table of Furukawa. This modification can be performed in software. This would benefit the system by providing a look-up table for providing an association between received telephone numbers and corresponding domain names that are required to access the IP addresses.

8. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park as applied to claim 1 above, and further in view of Asami (US 2005/0086379).

Regarding claim 4, Park is silent on the telephone number domain server further comprises a second storage section storing searched IP addresses.

Regarding claim 4, Asami teaches a telephone number domain server with storage section / look-up table storing searched IP addresses (fig. 11 box 50, fig. 12A, look-up table for storing FQDNs, [0004]).

Regarding claim 5, Park is silent on the address search section searches said second storage section and retrieves an IP

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address if said IP address exists in said second storage section.

Asami teaches searching a storage section and retrieving an IP address if said IP address exists in the storage section (DNS server finds an IP address from the FQDN with reference to look-up table, [0004]).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of Park by incorporating within the T-DNS server the look-up table of Asami. This modification can be performed according to the teachings of Asami. The suggestion to modify is the table provides a method wherein the DNS server may find an IP address from the FQDN (Asami: DNS server finds an IP address from the FQDN with reference to look-up table, [0004]). This would enable the DNS server to return to the DNS client the IP address corresponding to the received FQDN.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald

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Abelson whose telephone number is (571) 272-3165. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RA
Ronald Abelson
Examiner
Art Unit 2666

Ronald Abelson
